

We Claim:

1. A method of joining expandable tubulars and expanding the joined tubulars, the method comprising:

- joining the tubulars by forge welding while flushing a reducing flushing gas around the heated tubular ends during at least part of the forge welding operation such that oxides are removed from the forge welded tubular ends and the amount of irregularities between the forge welded tubular ends is limited; and
- radially expanding the joined tubulars.

2. The method of claim 1, wherein the tubulars comprise slots and/or other perforations at or near the forge welded ends, which slots and/or other perforations are filled with a heat resistant filler during the welding process.

3. The method of claim 2, wherein the tubular ends are heated by passing a high frequency current in circumferential direction through the tubular walls near the tubular ends that are to be joined, and the heat resistant filler comprises an electrically conductive ceramic material.

4. The method of claim 2 in which slots and/or perforations which intersect the exposed tubular ends have an increased width at the tubular ends to mitigate against forging together of the side walls of the slots and/or perforations when the tubular ends are joined by forge welding.

5. The method of claim 1, wherein the tubular ends are both expanded and folded into a substantially similar dented or corrugated shape before the forge welding operation, whereupon the dented or corrugated tubular ends are forge welded together and are unfolded into

a substantially cylindrical shape during the subsequent tube expansion process.

5 6. The method of claim 5, wherein the tubulars have an un-slotted, substantially continuous, wall in the region of the welded ends and comprise an array of staggered slots and/or other perforations away of the welded ends, such that when the tube is expanded the welded initially dented or corrugated tubular ends unfold to a substantially cylindrical shape and the slots and/or
10 other perforations are widened.

7. The method of claim 1, wherein the ends of a pair of at least partially overlapping tubulars are joined by forge welding by heating the overlapping tubular ends to a forge welding temperature and pressing the heated
15 partially overlapping tubular ends together whilst a reducing flushing gas is flushed around the heated tubular ends during at least part of the forge welding operation.

8. The method of claim 7, wherein a forge welding device
20 is inserted into the inner tubular which heats up the tubular end, flushes a reducing flushing gas into any gap remaining between the overlapping tubular ends and which subsequently presses the outer surface of the heated end of the inner tubular against the inner surface of the
25 outer tubular to join said tubular ends by forge welding.

9. The method of claim 1, wherein the tubular ends are teathed or have a sinusoidal shape in order to alleviate forces to the forge welded tubular ends during the expansion and/or unfolding process.

30 10. The method of claim 1, wherein the flushing gas is a non-explosive mixture of a substantially inert gas and a reducing gas.

11. The method of claim 10, wherein the flushing gas comprises more than 90% by volume of a substantially inert gas, such as nitrogen, helium or argon and more than 2% by volume of hydrogen.